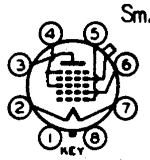
1B7-GT

1B7-GT

PENTAGRID CONVERTER

Filament	Coated	
Voltage	1.4	d-c volts
Current	0.10	amp.
Direct Interelectrode Capacitances:°		
Grid #4 to Plate	0.34	μμf
Grid #4 to Grid #2	0.26	μμf
Grid #4 to Grid #1	0.12	μμf
Grid #1 to Grid #2	0.90	μμf
Grid #4 to All Other Electrodes (R-F Input)	7.0	μμf
Grid #2 to All Other Electrodes Except Grid #1 (Osc. Output)	4.2	μμf
Grid #1 to All Other Electrodes Except Grid #2 (Osc. Input)	4.0	μμf
Plate to All Other Electrodes (Mixer Output)	7.5	μμf
Maximum Overall Length		3-5/16"
Maximum Seated Height		2-3/4"
Maximum Diameter		1-5/16"
Bulb		T-9
Cap		Skirted Miniature, Style C ←
Base		Sm. Wafer Octal 8-Pin, Sleeve

Pin 1 - Base Sleeve
Pin 2 - Filament +
Pin 3 - Plate
Pin 4 - Grids #3 & #5
Pin 5 - Grid #1



Pin 6 - Grid #2
Pin 7 - Filament -
Pin 8 - No Connection
Cap - Grid #4

Mounting Position: Any

BOTTOM VIEW (GT-7Z)

CONVERTER SERVICE

Plate Voltage	110 max.	volts ←
Screen (Grids #3 & #5) Voltage #	65 max.	volts ←
Screen Supply Voltage	110 max.	volts ←
Anode-Grid (Grid #2) Voltage	110 max.	volts ←
Total Zero-Signal Cathode Current	4 max.	ma. ←
Typical Operation and Characteristics:		
Plate	90	volts
Screen	45#	volts
Anode-Grid	90	volts
Control-Grid (Grid #4)*	0	volts
Oscillator-Grid (Grid #1) Resistor	200000	ohms
Plate Resistance	0.35	megohm
Conversion Transcond.	350	μmhos
Control-Grid Bias for Conversion Transcond. of approx. 2 μmhos	-14.5	volts
Plate Cur.	1.5	ma.
Screen Cur.	1.3	ma.
Anode-Grid Cur.	1.6	ma.
Oscillator-Grid Cur.	0.035	ma.
Total Cathode Cur.	4.4	ma. ←

NOTE: The transconductance of the oscillator portion (not oscillating) is 875 μmhos under the following conditions: plate volts, 90; screen volts, 45; control-grid volts, 0; anode-grid volts, 90; oscillator-grid volts, 0. ←

° With close-fitting shield connected to negative filament terminal.
Obtained preferably by using a properly by-passed 45000- to 75000-ohm voltage dropping resistor in series with the supply voltage.
* A resistance of at least 1.0 megohm should be in the grid return to negative filament pin.

Typical Pentagrid Converter Circuit is shown under Type 1A6.

← Indicates a change.

Dec. 1, 1941 — TENTATIVE DATA